

IN THE CLAIMS

The text of all claims under examination is submitted, and the status of each is identified. This listing of claims replaces all prior versions, and listings, of claims in the application.

1.(currently amended): A process of separating suspended solids from a fermentation liquor by subjecting the liquor to a solids-liquid separation stage, wherein the fermentation liquor is produced in a fermentation process for the production of a fermentation product, which fermentation liquor comprises lignin, wherein the solids-liquid separation stage comprises treating the fermentation liquor with an anionic polymer having an anionic content of at least 50 % by weight and having an intrinsic viscosity of at least 4 dl/g (measured in 1 M NaCl at 25° C), flocculating the suspended solids containing lignin in the fermentation liquor and subjecting the fermentation liquor to a mechanical dewatering stage selected from at least one of, a centrifuge, a screw press, a filter press, a belt filter press, a horizontal belt filter or a pressure filter to separate the flocculated suspended solids and lignin as cake solids, wherein the cake solids contain mainly lignin.

with the proviso that the solids-liquid separation stage does not include a cationic polymer having an intrinsic viscosity (IV) of at least 4 dl/g ~~and the suspended solids from the fermentation liquor contain mainly lignin with the proviso that when the anionic polymer is a synthetic polymer, the synthetic polymer has an intrinsic viscosity of at least 4 dl/g (measured in 1 M NaCl at 25° C).~~

2.(original): A process according to claim 1 in which the fermentation liquor is subjected to a distillation stage wherein the fermentation product is recovered, wherein the liquor is recovered from the distillation stage as a stillage stream and then subjected to the solids-liquid separation stage.

3.(original): A process according to claim 1 in which the fermentation liquor contains the fermentation product wherein the liquor is subjected to the solids-liquid separation stage and then passed to a second distillation stage wherein the fermentation product is recovered.

4.(cancelled).

5.(previously presented): A process according to claim 1 in which the anionic polymer is formed from anionic monomers selected from the group consisting of (meth) acrylic acid (or salts), maleic acid(or salts), itaconic acid(or salts), fumaric acid(or salts), vinyl sulfonic acid(or salts), allyl sulfonic acid and 2-acrylamido-2-methyl sulfonic acid(or salts).

6.(cancelled).

7.(previously presented): A process according to claim 1 in which the solid-liquid separation stage further comprises addition of a cationic polymer that exhibits an intrinsic viscosity below 4 dl/g (measured in 1 M NaCl at 25°C).

8.(original): A process according to claim 7 in which the cationic polymer exhibits a charge density of at least 3 meq/g.

9.(previously presented): A process according to claim 7 in which the cationic polymer is selected from the group consisting of polyamines, amine/epihalohydrin addition polymers, polymers of dicyandiamide with formaldehyde, polymers of diallyldimethyl ammonium chloride (DADMAC), cationic starch and cationic inulin, polymers of dialkyl amino alkyl (meth) acrylates (or salts) and dialkyl amino alkyl (meth) acrylamides (or salts).

10.(previously presented): A process according to claim 7 in which the anionic polymer and cationic polymer are added sequentially.

11.(previously presented): A process according to claim 1 in which the dose of anionic polymer is at least 50 grams per tonne (based on dry weight of fermentation liquor).

12.(previously presented):A process according to claim 7 in which the dose of cationic polymer is at least 50 grams per tonne (based on dry weight of fermentation liquor).

13.(previously presented): A process according to claim 1 in which the solid-liquid separation stage further comprises addition of a siliceous material.

14.(original): A process according to claim 13 in which the siliceous material is selected from the group consisting of silica based particles, silica microgels, colloidal silica, silica sols, silica gels, polysilicates, cationic silica, aluminosilicates, polyaluminosilicates, borosilicates, polyborosilicates, zeolites and swellable clays.

15.(previously presented): A process according to claim 13 in which the siliceous material is an anionic microparticulate material.

16.(previously presented): A process according to claim 13 in which the siliceous material is a bentonite type clay.

17.(previously presented): A process according to claim 13 in which the siliceous material is selected from the group consisting of hectorite, smectites, montmorillonites, nontronites, saponite, sauconite, hormites, attapulgites and sepiolites.

18-19.(cancelled).

20.(previously presented): A process according to claim 1 in which the treated liquor from which suspended solids have been removed are recycled and used as wash water.

21.(previously presented): A process according to claim 1 in which the fermentation liquor comprises lignin and in which the separated solids are dewatered and then subjected to a drying stage to provide a dry solid material and in which the dry solid material is used as a solid fuel.

22.(previously presented): A process according to claim 1 in which the fermentation liquor has not been subjected to a temperature of at least 50°C.

23.(previously presented): A process according to claim 1 in which the fermentation product is selected from the group consisting of ethanol, glycerol, acetone, n-butanol, butanediol, isopropanol, butyric acid, methane, citric acid, fumaric acid, lactic acid, propionic acid, succinic acid, itaconic acid, acetic acid, acetaldehyde and 3-hydroxypropionic acid, glyconic acid, tartaric acid, L-glutamic acid, L-lysine, L-aspartic acid, L-tryptophan, L-arylglycines and salts of any of these acids.

24 (cancelled).

25. (previously presented): A process according to claim 7, wherein the cationic polymer has a molecular weight of below 1,000,000.